

AMENDMENTS TO THE SPECIFICATION:

Please replace paragraph [0012] with the following amended paragraph:

[0012] This form may be scaled to larger or smaller sizes provided, however, that the rotor wheel or disk diameters are correspondingly scaled to larger or smaller sizes or that the two sides of the bucket and wheel are offset similarly, ~~equally~~, i.e., wider or narrower. In addition, although a preferred range of tolerances for the dimensions of the bucket and wheel are provided herein, those skilled in the art will recognize that a broader range of tolerances could also be employed in practicing the invention.

Please replace paragraph [0038] with the following amended paragraph:

[0038] FIGURES 3A and 3B show forward and aft views of bucket root 21 interlocked within wheelposts 13 (or installed in broach slot 12). In FIGURES 3A and 3B, empty broach slot 12 is adjacent to the slot with the bucket root 21 installed and shows in perspective upper tang 28 of wheelpost 13. A horizontal (axial) air channel 31 is formed between surfaces 224 and 225 of the broach slot and the bottom flat surface of the bucket root and communicates with vertical (radial) air passages 41, shown in FIGURES 4 and 5. Air channel 31 allows an adequate amount of cooling air to the bucket, while maintaining an adequate live rim radius to reduce the amount of dead weight in the firtree and wheelpost. More particularly, as shown in FIGURE 4, the neck above the bottom tang on the firtree (between fillets 27) has been sized to permit

passage of sufficient airfoil cooling air while maintaining an adequate thickness to carry the necessary loading at reasonable stress levels.

Please replace paragraph [0054] with the following amended paragraph:

[0054] As noted above, tang 24 is formed in part by two radial curves having center points offset from either side of center line C. ~~C₁~~ ~~(a)~~ A third radial curve forming tang 24 has its center point on center line C the distance L_{31} from the bottom of tang 24. ~~24~~. Distance L_9 shows the offsets to the right and left of center line C (offset is only shown to the right of center line C in FIGURE 9) and measures .0327 inches. The offset radii are shown in FIGURE 10 as R_1 and measure .3762 inches. The radius for the curve having its center point on the center line is shown in FIGURE 10 as R_{13} and measures .5556 inches.

Please replace paragraphs [0067], [0068] and [0069] with the following amended paragraphs:

[0067] FIGURE 13 schematically depicts that the bucket dovetail ~~(shown)~~ and wheel broach profiles ~~(not shown)~~ can be formed within a range of tolerances as shown by the heavy and dotted lines. For example, with respect to the bucket, ~~bucket~~ its outer dimensions could be altered ~~increased~~ from the solid line to a shape within the dotted lines. ~~line~~. Similar changes in dimensions ~~(not shown)~~ could be made to the wheel. Of course, as recognized by those skilled in the art, instead of increasing the dimensions to the dotted line as shown in FIGURE 13, the dimensions could be decreased to levels smaller than the solid line in FIGURE 13.

[0068] In FIGURE 13, ~~43~~ 'A' represents the combination of lines and curves making up the bucket dovetail or wheel broach profile as defined exactly. 'B' represents the zone bound by offsets of 'A' by ± 0.001 inches and contains profile variations that meet the preferred embodiment. 'C' represents the zone bound by offsets of the individual mirrored sides of 'A' by ± 0.01 inches and contains ~~contain~~ profile variations that fall within the scope of the invention.

[0069] In particular, all of the dimensions for the bucket and wheel could be scaled larger or smaller than those given for the preferred embodiment. Furthermore, the two sides of the bucket (and corresponding broach slot) could be spaced differently by increasing or decreasing dimensions L_1 , L_2 , L_3 , L_4 , L_9 , L_{10} which would result in different bottom fillet radii 227, 211 and 211, ~~211, 212~~ for the bucket. Similarly, increasing or decreasing the corresponding dimensions of the broach slot would result in different bottom fillet radii 228, 224 and 225.